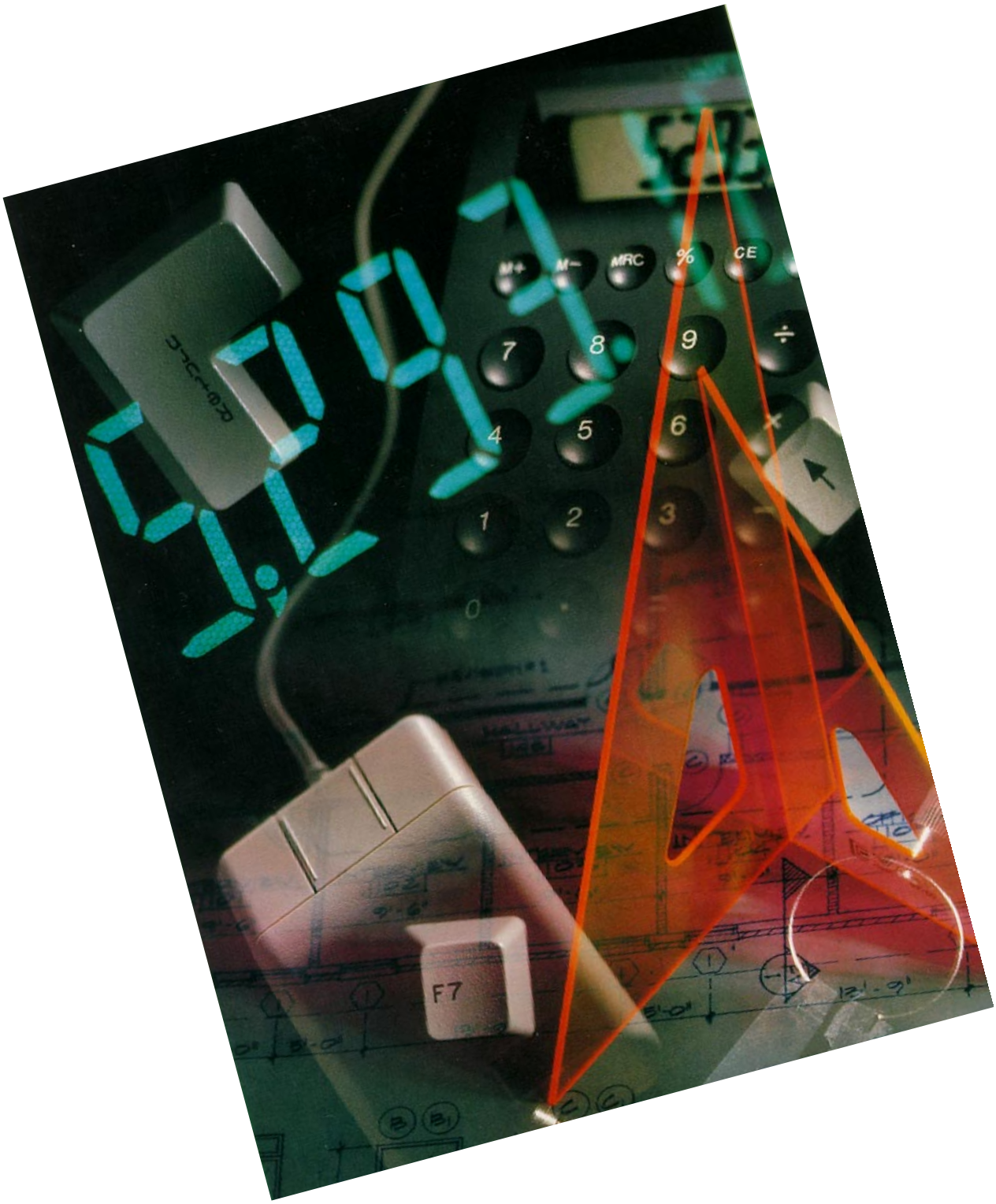
COMMERCIAL DESIGN AND CONSTRUCTION GUIDE



COMMERCIAL CONSTRUCTION GUIDELINES

Steps To Establishing Electric Service In SRP Service Territory.

At Salt River Project (SRP), we understand that taking a business from blueprint to building can be a troublesome task. So we're doing everything we can to help make that process a little easier.

The step-by-step instructions in this guide explain how to initiate the design and construction of electrical service, and tips on upgrading existing service. By following these steps, you'll help avoid delays and speed the completion of your project.

This guide also gives you a list of key SRP contacts who can help answer any questions you may have along the way.

SRP will make every effort to meet your construction schedule needs. To help in your planning, "approximate cycle times" are listed for single-service job scopes where SRP facilities are immediately available to the project's site.

Step 1
Pre-Submittal Stage.

The first thing a customer, engineer or architect should do is contact the SRP Electric System Design and Construction Expeditor prior to establishing designs. A Project Leader will be assigned to your project. The Project Leader is responsible for managing your electric construction or renovation and is assisted by the expeditor and other designers for the duration of your project. Your design projects may consist of the following:

- Demand Pulse Initiators (DPI)
- Point of feed
- Automatic Transfer Switches (A.T.S.)
- Meter rooms
- Co-generation
- Redundant/Excess/Dedicated facilities
- Transformer locations
- Service Entrance Section (S.E.S.) locations
- Totalized metering
- Additional S.E.S. services
- Primary metering
- S.E.S. revamping (whether for added load or not)

The earlier SRP is brought into this stage, the less likely there will be confusion in the following stages. These items have unique requirements, so contact with SRP is important. SRP does exceed the NEC requirements in some instances, and requires special working clearances for all SRP facilities.

If the project requires less than 400 amps, contact Commercial Customer Service, 236-8833, for a request for service.

Note that some municipalities have undergrounding ordinances. Please obtain the conditions and extent of conversion required from the municipality, and then notify SRP of these facts.

Step 2
Pre-Design Stage.

Approximate cycle time: 1 week

Contact the SRP Expeditor for the appropriate region. (Please see the map in the center of this guide.)

The following information is needed to request a preliminary cost and a conceptual design: (Please have this information ready when making your initial call.)

- Owner's name, address, phone number, FAX number.
- Owner's representative/local contact's name, address, phone number, FAX number.
- Dimensional site plan and location.
- S.E.S. rating (amps, volts, phases), and requested location.
- Desired location for transformer.
- Tentative date to begin electric service.

You may request a specific transformer and S.E.S. location, but SRP's Safety, Operations, and Design Standards may require an adjustment to requested placement. It may be necessary for an SRP Designer or Project Leader to meet with you at the job site.

Step 3

Design Stage.

Approximate cycle time: 4 weeks

Final design will be initiated when payment, the signed original construction contract, completed "milestone agreement," and all required plans and information are received. **To set up account data and resolve billing-related issues, please call in a service request (236-8833). There may also be a power-use deposit required. This is a separate fee from the design fees.**

A lockbox fee will be required for all "meter room" scenarios. In situations where backup generators or alternate electric sources are available, only an Open Transition Automatic Transfer Switch (A.T.S.) is accepted by SRP. The operation protocol and manufacturer's specifications must be submitted to SRP for review and approval.

Typical fees associated with a commercial project include removal, relocation, conversion of existing SRP facilities, cost per S.E.S. amp, and transformer charges.

Plans/information typically needed:

- Legal description of job site property.
- Dimensioned site plan ("tie-down" to monument point or coordinate geometry data).
- Complete set of civil plans (water, sewer, paving, grading and drainage, gas plan, off-site improvements, irrigation).
- Complete set of electrical plans (electrical site plan, meter room detail, load summary, one-line diagram, S.E.S. information including shop drawings, requested location of S.E.S. and transformer).
- Approved municipal street light layout if project is located within the following municipalities or if the Arizona Department of Transportation (ADOT) has involvement: Chandler, Glendale, Mesa, Phoenix, or Tempe. *Note:* SRP does not install street lights for these municipalities. A point of delivery (service connection location) is part of the design.
- Municipality requirements for utility improvements (i.e., power line removal, relocation or overhead-to-underground conversion, and landscape meters).
- Service requirements for guard shacks, gates, etc.
- Project schedule.

At the completion of your project's design, the SRP designer will submit their job design to the applicable municipalities for construction permits. The time required to receive approved permits varies with municipality. This may add to the design cycle time.

Step 4

Customer's Construction Stage.

Approximate cycle time: Customer driven

The SRP job design will detail customer and SRP construction responsibilities. In most commercial applications, the customer is responsible for trenching, conduit, conduit installation, backfill, and transformer pad(s). Once this work is completed and passes SRP inspection, SRP construction forces will begin their work. By following a few key steps in this phase, you can avoid delays in the project's energized date.

First, a "pre-construction meeting" (236-8373 or 236-6300) needs to be scheduled before beginning any work related to the electric system installation. This will allow you or your contractors the chance to review the SRP job design with the SRP designer and inspector. An SRP survey crew may also attend to complete work needed for easement acquisition from the land owner.

This meeting will include:

- Review of final plans, construction schedule, and procedure.
- Approval of SRP's design by owner or owner's representative.
- SRP, customer and customer's contractors "review outage requirements (if necessary) and their effects on existing customer's service. (Since new construction can impact existing customers' service, outages may need to be negotiated with affected customers.)

During construction, SRP needs to complete easement acquisition for all of its facilities. The land owner(s) need to sign the easement paperwork before electric service can begin.

The address you use to obtain the municipal permits for your work should be the same address given on the SRP service request. The city clearance will come to SRP with this address and it needs to match exactly with the address established for the meter.

Shop prints (a.k.a. Cut Sheets or S.E.S. Manufacturer's equipment plans) need to be received and accepted by SRP's Meter Shop.

Lastly, all installed facilities need to pass SRP and city final inspections, including city clearances of S.E.S.

Please be sure to have your S.E.S. "high-pott tested" before SRP installs the meter, Cts and Pts (if applicable), DPI, or Totalization equipment. An SRP Meter crew will install these devices.

For mobile home parks and apartment complexes, please be sure to provide Commercial Customer Services with a copy of the city approved address plans and load information on house panels, pools, recreation rooms and other such structures. For subdivisions, please provide addresses and loads for all locations, to include model homes, retention basins and monument signs.

With the completion of all these items, SRP will pursue a construction schedule and give an anticipated energized date. Inclement weather, rain, and wind storms can impact this schedule.

Step 5

SRP's Construction Stage.

Approximate cycle time: 4 weeks

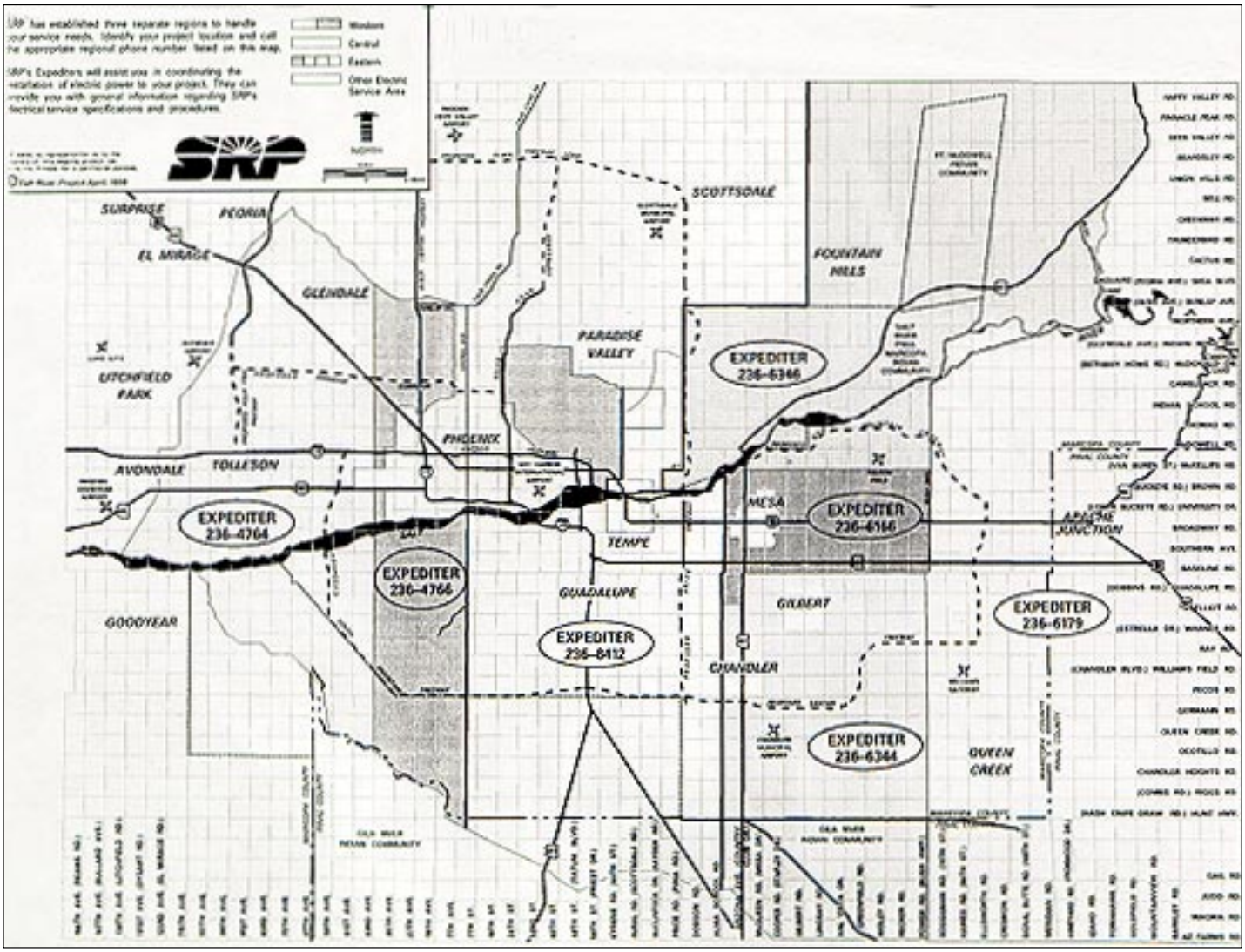
SRP begins construction of SRP facilities needed for the project. Construction time varies depending on size of project. All customer-installed conduit that will not allow wire installation is the customer's responsibility to correct.

General Notes.

Customer/customer's contractor is responsible for the following:

- Trenching and installing conduit and potentially installing pads and pullboxes at worksite.
- Calling SRP inspections to verify depth and number of conduits prior to backfilling trench.
- Stubbing-up conduit according to design at equipment locations and for passing inspections at these areas.
- Mandrelling conduit in front of an SRP inspector to make certain conduit is in proper condition. (Inspection for wire clearance.)
- Requesting final inspection of site to verify all required conditions are met.
- Insuring receipt of final inspection document. Inspector will send copy of final inspection to construction scheduler/planner.

WHO TO CALL


SRP has established three separate regions to handle your service needs. Identify your project location and call the appropriate regional phone number listed on this map.
SRP's Expediters will assist you in coordinating the installation of electric power to your project. They can provide you with general information regarding SRP's electrical service specifications and procedures.
Western
Central
Eastern
Other Electric Service Area
SRP
SURPRISE
PEORIA
EL MIRAGE
GLENDALE
LITCHFIELD PARK
AVONDALE
TOLLESON
GOODYEAR
PHOENIX
SCOTTSDALE
PARADISE VALLEY
FOUNTAIN HILLS
TEMPE
MESA
GILBERT
CHANDLER
GUADALUPE
QUEEN CREEK
APACHE JUNCTION
EXPEDITER 236-4764
EXPEDITER 236-4766
EXPEDITER 236-6412
EXPEDITER 236-6366
EXPEDITER 236-6166
EXPEDITER 236-6179
EXPEDITER 236-6344

Who To Call For Underground Electric Facilities Maps.

To request copies of underground electric facilities maps, please fax your request to the Files and Reproduction Department at 236-3196. If you do not have access to a fax, you can call 236-5513 and leave a message with your name, phone number, address, and the map you are requesting.

- For irrigation maps, call 236-5799.
- For easement information, contact Connie Lee-Nunn in Property Management at 236-8189.
- Plan on a two-week turnaround time when ordering.
- Please provide the following information when requesting maps:
  - Township, Range, Section, 40-acre (or 1/4 section if you are not sure).
  - Address.
  - Site location and/or street boundaries of the site location (not street boundaries of the 1/4 section).
- Our maps are in 1/4, 1/4 sections. It helps us both if we only send the maps you need.

Other Issues Of Importance.

- It is important that you never construct facilities that impact SRP access or easements, change grade over underground facilities, or place facilities under overhead lines without first obtaining clearance from SRP. Please contact SRP before initiating any construction within the vicinity of SRP facilities. Relocation or de-energization may be necessary to retain a safe work area.
- If SRP Association (Water/Canal/Irrigation) facilities are impacted by the project, the customer needs to contact Water User's Customer Service (236-3333) and submit plans as required. There may be costs to the customer for work in this area.
- Compaction testing of backfill and pad-mounted equipment sites will be part of the SRP inspection process.
- All customer motors greater than 25HP (208/240V) or 75HP (480V) need to be equipped with reduced voltage or increment starting devices.
- Joint trench is allowed with commercial Telco and CATV only. (No private uses.) All gas and wet utilities must go in a separate trench.
- To paint SRP-owned pad-mounted facilities, please obtain and adhere to painting terms and conditions.
- A copy of SRP's Electric Service Specifications (ESS) manual is available at any SRP Business Office, or by contacting Electric System Design and Construction personnel. (See the map in this guide for contacts.)

A GUIDE TO KEY CONTACTS

SRP has several departments dedicated to helping you in the design and construction process. Our experts can provide you with answers to questions on electric system design and construction. Information and support regarding land rights. Development around irrigation facilities. Features of available land and buildings. And additional support in preparing sites for electrical service.

The following is a list of phone numbers and key contacts for each respective department.

Electrical System Design And Construction.

See map for Expeditor contacts in the facility's region.

This major area is responsible for the design, construction, mapping and engineering of the electric transmission and distribution system. The distribution (12 kV and below) design and construction functions are assigned in three regions (please see the map on the center spread of this guide).

The Electric System Design and Construction groups prepare designs to serve new developments, install new SRP electric facilities and modify existing facilities. They also serve as the customer's consultant from inception through energization, coordinating with SRP land, metering and construction. Other activities include inspection of customer-provided construction and mapping of completed projects.

Water Engineering.

Call 236-2977.

This department can help determine if SRP irrigation facilities are involved with your site development. They will answer your questions, provide you with drawings of SRP facilities, and review your development plans for conflict with those facilities. If relocation or undergrounding of the SRP facilities is needed, they will perform the engineering. Complex land rights, costly facilities, and construction time frame constraints can be involved, so you should contact this department as early as possible.

Land Department.

Call 236-8182.

The Land Department provides information, survey, appraisal, acquisition and management of land rights to support SRP facilities. Specific activities include research of existing land rights, field survey and technical documentation, value estimates and appraisals, land right acquisitions and recordations, and management of non-operational land holdings. The Land Department ensures compliance with current practices for real estate activities.

Marketing.

Call 236-4444.

The SRP Marketing Department includes several functions which can help you in the development process.

▼ Economic Development Representatives maintain a database of available land and buildings. They can assist you in working with local governmental entities to secure permits and approvals. Complete confidentiality is assured for your project.

▼ Business Market Engineers can help you and your design team with energy-related design decisions for your project, including HVAC, lighting, water heating, and indoor air quality considerations.

▼ Business Account Managers maintain liaison with our business customers on an assigned account basis. They can assist you through the entire construction process, providing information on all aspects of your energy needs.

Commercial Customer Service.

Call 236-8833.

This group is the first point of contact for all small (less than 400 amps) commercial customers requiring electric service. Their activities include: connect or disconnect of existing service, handling of billing questions, initiation of service requests for line and meter installation, job scheduling, and security deposit requirements.

The Commercial Customer Service Group works closely with several other departments to handle customer needs.

PUT OUR TEAM TO WORK FOR YOU

As you can see, SRP will gladly work with you every step of the way so that your electric service is established as quickly and easily as possible.

If you have any questions, or need more information, call us at (602) 236-4444. Helping you get your project up and running is just one of the ways we deliver more than power.

5/96-2233